TSD File Inventory Index

Date: March 23, 2006

Initial: CMcGuerras

Facility Name: Allied Finishing, Inc. (One Feeder Site)

Facility Identification Number: MID 085 890 846

A.1 General Correspondence		**B.2 Permit Docket (B.1.2)**	
A.2 Part A / Interim Status	X	.1 Correspondence	
.1 Correspondence	X	.2 All Other Permitting Documents (Not Part of the ARA)	
.2 Notification and Acknowledgment	X	**C.1 Compliance - (Inspection Reports)**	
.3 Part A Application and Amendments	X	**C.2 Compliance/Enforcement**	X
.4 Financial Insurance (Sudden, Non Sudden)		.1 Land Disposal Restriction Notifications	
.5 Change Under Interim Status Requests		.2 Import/Export Notifications	
.6 Annual and Biennial Reports		**C.3 FOIA Exemptions - Non-Releasable Documents**	
A.3 Groundwater Monitoring		**D.1 Corrective Action/Facility Assessment**	
.1 Correspondence		.1 RFA Correspondence	
.2 Reports		.2 Background Reports, Supporting Docs and Studies	
A.4 Closure/Post Closure		.3 State Prelim. Investigation Memos	
.1 Correspondence		.4 RFA Reports	
.2 Closure/Post Closure Plans, Certificates, etc		**D. 2 Corrective Action/Facility Investigation**	
A.5 Ambient Air Monitoring		.1 RFI Correspondence	
.1 Correspondence		.2 RFI Workplan	
.2 Reports		.3 RFI Program Reports and Oversight	
B.1 Administrative Record		.4 RFI Draft /Final Report	
		5. RFI QAPP	

Total — 1

.6 RFI QAPP Correspondence		.8 Progress Reports	
.7 Lab Data, Soil-Sampling/Groundwater		**D.5 Corrective Action/Enforcement**	
.8 RFI Progress Reports		.1 Administrative Record 3008(h) Order	
.9 Interim Measures Correspondence		.2 Other Non-AR Documents	
.10 Interim Measures Workplan and Reports		**D.6 Environmental Indicator Determinations**	
D.3 Corrective Action/Remediation Study		.1 Forms/Checklists	
.1 CMS Correspondence		**E. Boilers and Industrial Furnaces (BIF)**	
.2 Interim Measures		.1 Correspondence	
.3 CMS Workplan		.2 Reports	
.4 CMS Draft/Final Report		**F Imagery/Special Studies** (Videos, photos, disks, maps, blueprints, drawings, and other special materials.)	Y
.5 Stabilization		**G.1 Risk Assessment**	
.6 CMS Progress Reports		.1 Human/Ecological Assessment	
.7 Lab Data, Soil-Sampling/Groundwater		.2 Compliance and Enforcement	
D.4 Corrective Action Remediation Implementation		.3 Enforcement Confidential	
.1 CMI Correspondence		.4 Ecological - Administrative Record	
.2 CMI Workplan		.5 Permitting	
.3 CMI Program Reports and Oversight		.6 Corrective Action Remediation Study	
.4 CMI Draft/Final Reports		.7 Corrective Action/Remediation Implementation	
.5 CMI QAPP		.8 Endangered Species Act	
.6 CMI QAPP Correspondence		.9 Environmental Justice	
1 Lab Data - Soil Sampling / Groundwater			

nsmittal Letter to Be Included with Reports.

(see folder date)

A.2 Part A/Interim Status

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V
111 West Jackson Blvd.
CHICAGO, ILLINOIS 60604

REPLY TO ATTENTION OF:
RCRA ACTIVITIES

10 NOV 1982

Mr. R. W. Corl, Jr.
President
Allied Finishing, Incorporated
4100 Broadmoor Southeast
Grand Rapids, Michigan 49508

R

RE: Withdrawal of Part A
(Wastewater Treatment
Unit)
FACILITY NAME: Allied Finishing, Incorporated
USEPA ID NO.: MID 085 890 846

Dear Mr. Corl:

This is to acknowledge that the United States Environmental Protection Agency (USEPA) has completed its review of your Part A Hazardous Waste Permit Application and your letter of March 19, 1982, requesting the withdrawal of your permit application. According to the information which you have submitted, your facility has a wastewater treatment unit as defined in 40 CFR Part 260.10. It is the opinion of this office, based on the information submitted, that your facility is not required to have a hazardous waste permit under Section 3005 of the Resource Conservation and Recovery Act at this time. Please be advised that you must still comply with all applicable State and local requirements.

You will retain your USEPA Identification number if you notified as a generator of a hazardous waste.

Please contact the Technical, Permits, and Compliance Section at (312) 353-2197 for assistance if you have any questions. Please refer to "Withdrawal of Part A (Wastewater Treatment Unit)," in all correspondence on this matter.

Sincerely yours,

Karl J. Klepitsch, Jr.

Karl J. Klepitsch, Jr., Chief
Waste Management Branch

Enclosure

cc: Mr. Michael D. Smith, Lab Technician
Mr. Carl H. Nevendorf
MDNR

A23

Allied Finishing, Inc.
4100 Broadmoor S.E.
Grand Rapids, MI 49508
Phone 616 698-7550

March 19, 1982

EPA Region V
RCRA Activities
P.O. Box ~~7861~~ A3587
Chicago, Illinois ~~60680~~ 60690

Attention: Mr. Joe Boyle

Dear Sir:

After conferring with Mr. Joe Boyle, Region V headquaters on March 16, 1982, and studying the 40 CFR 265.1 paragraph CIO and 260.10, we have come to the conclusion that our facility, Allied Finishing, Inc. MID085890846, meets the requirments of a waste water treatment unit category, which does not require a permit.

Therefore, we wish to withdraw our hazardous waste permit application submitted on March 2, 1982.

Respectfully yours,
Allied Finishing, Inc.

R. W. Corl, Jr.
President

Michael D. Smith
Lab Technician

RWC/ss

RECEIVED
3/22/82

RECEIVED
MAR 22 1982
WASTE MANAGEMENT BRANCH
EPA, REGION V

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V
111 West Jackson Blvd.
CHICAGO, ILLINOIS 60604

REPLY TO ATTENTION OF:
RCRA Activities

FEB 09 1982

Michael D. Smith
Allied Finishing Inc.
4100 Broadmoor SE
Grand Rapids, MI 49508

RE: Hazardous Waste Permit Application-Incomplete Part A
Facility Name (and EPA ID number) (MI-D-085-890-846)
Facility Address

We have completed our review of your Part A RCRA permit application for the facility referenced above. The application was incomplete; therefore, we are returning it to you along with a checklist which indicates the missing items marked with an "X". Please return the form in time to reach this office by March 9, 1982. The form must be signed by the appropriate certifying official (Item XIII on Form 1 or Item IX and X on Form 3) or his duly authorized representative. All of these items are necessary in order for the U.S. Environmental Protection Agency to determine whether your facility meets the requirements for interim status.

Please feel free to contact David Homer, the reviewer of your application, at (312) 353-2197 or me at (312) 886-7449 if you have any questions or wish to discuss the missing items on the checklist.

Sincerely yours,

Arthur S. Kawatachi
Regional Project Officer

Enclosure

MID085890846

PS Form 3811, Jan. 1979

SENDER: Complete items 1, 2, and 3.
Add your address in the "RETURN TO" space on reverse.

1. The following service is requested (check one.)
- ☐ Show to whom and date delivered..... ¢
- ☐ Show to whom, date and address of delivery... ¢
- ☐ RESTRICTED DELIVERY
  Show to whom and date delivered..... ¢
- ☐ RESTRICTED DELIVERY.
  Show to whom, date, and address of delivery.$

(CONSULT POSTMASTER FOR FEES)

2. ARTICLE ADDRESSED TO:
Michael Smith
4100 Broadmoor SE
Grand Rapids, MI 49508

3. ARTICLE DESCRIPTION:

REGISTERED NO.	CERTIFIED NO.	INSURED NO.
	313668	

(Always obtain signature of addressee or agent)

I have received the article described above.
SIGNATURE ☐Addressee ☐Authorized agent

James Marshall

4. DATE OF DELIVERY
2/12/82

POSTMARK
FEB 12 1982

5. ADDRESS (Complete only if requested)

6. UNABLE TO DELIVER BECAUSE:

CLERK'S INITIALS

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

☆GPO : 1979-288-848

UNITED STATES POSTAL SERVICE

OFFICIAL BUSINESS

SENDER INSTRUCTIONS

Print your name, address, and ZIP Code in the space below.

- Complete items 1, 2, and 3 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300

U.S.MAIL

RETURN TO

USEPA - Region V - RCRA Activities
(Name of Sender)

P.O. Box A3587
(Street or P.O. Box)

Chic[illegible] IL 60690-3587
(City, State, and ZIP Code)

Please print or type in the unshaded areas only
(fill—in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved OMB No. 158-R0175

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

S													T/A	C
F	M	I	D	0	8	5	8	9	0	8	4	6		D
1	2											13	14	15

LABEL ITEMS

- I. EPA I.D. NUMBER
- III. FACILITY NAME
- V. FACILITY MAILING ADDRESS
- VI. FACILITY LOCATION

MID085890846
Allied Finishing, Inc.
4100 Broadmoor S.E.
Grand Rapids, Michigan 49508

RECEIVED
MAR 19 1982
WASTE MANAGEMENT BRANCH
EPA REGION V

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill—in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill—in area*(s)* below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold—faced terms.**

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)		X	
B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.**? (FORM 2B)		X	
C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)		X	
D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.**? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)	X		
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	
J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP: Allied Finishing, Inc.

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*		
2 Smith, Michael D. LabTechnician	616	698	7550

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX			
3 4100 Broadmoor S.E.			
B. CITY OR TOWN	**C. STATE**	**D. ZIP CODE**	
4 Grand Grand	MI	49508	

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER			
5 4100 Broadmoor S.E.			
B. COUNTY NAME			
Kent			
C. CITY OR TOWN	**D. STATE**	**E. ZIP CODE**	**F. COUNTY CODE** *(if known)*
6 Grand Rapids	MI	49508	

RECEIVED 3/19/82

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST	B. SECOND
3471 (specify) Plating Sludge	(specify)

C. THIRD	D. FOURTH
(specify)	(specify)

VIII. OPERATOR INFORMATION

A. NAME: Robert W. Corl, Jr.

B. Is the name listed in Item VIII-A also the owner? [X] YES [ ] NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)
F = FEDERAL, S = STATE, P = PRIVATE, M = PUBLIC (other than federal or state), O = OTHER (specify)
P (specify)

D. PHONE (area code & no.): A 616 698 7550

E. STREET OR P.O. BOX: 4100 Broadmoor S. E.

F. CITY OR TOWN: Grand Rapids

G. STATE: MI

H. ZIP CODE: 49508

IX. INDIAN LAND

Is the facility located on Indian lands? [ ] YES [X] NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)	D. PSD (Air Emissions from Proposed Sources)
9 N	9 P
B. UIC (Underground Injection of Fluids)	E. OTHER (specify)
9 U	9
C. RCRA (Hazardous Wastes)	E. OTHER (specify)
9 R	9

Not applicable under rules regarding discharge into POTW'S & RCEA'S 90 day exemption according to 40 CFR262.34

(specify)

(specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property bounderies. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

Allied Finishing, Inc. is a copper, nickel, and chrome plater of zinc die castings and steel stampings on a job shot basis.

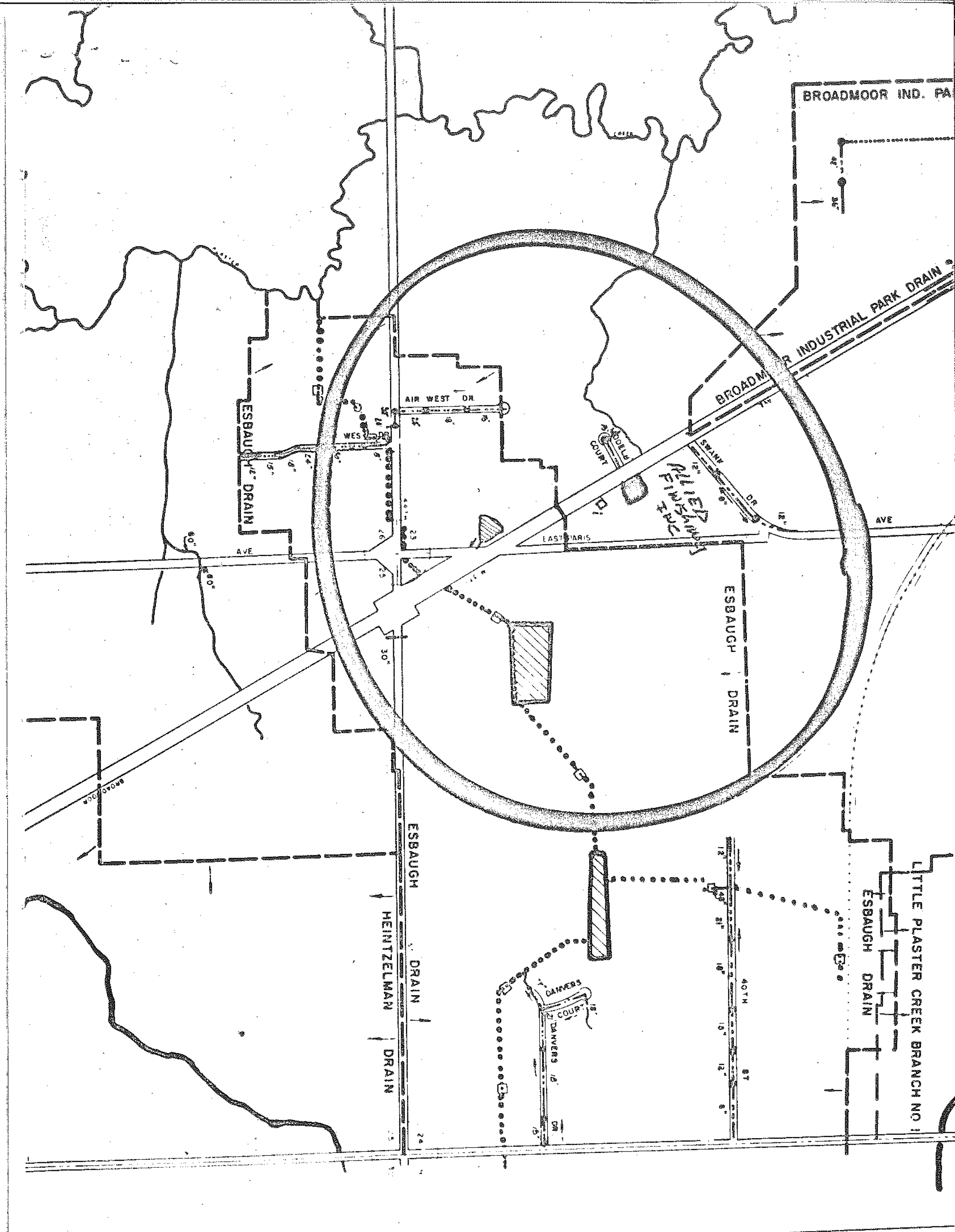
XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
Robert W. Corl, Jr. President	Robert W. Corl	3-2-82

COMMENTS FOR OFFICIAL USE ONLY

C


BROADMOOR IND. PA
BROADMOOR INDUSTRIAL PARK DRAIN
AIR WEST DR.
ESBAUGH DRAIN
EAST PARIS
AVE
SWANK DR
ALLIED FINISHING INC
ESBAUGH DRAIN
ESBAUGH DRAIN
HEINTZELMAN DRAIN
DANVERS COURT
DANVERS DR
40TH ST
LITTLE PLASTER CREEK BRANCH NO 1
ESBAUGH DRAIN

Please print or type in the unshaded areas only
(fill—in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved OMB No. 158-S80004

FORM 3 RCRA

U.S. ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE PERMIT APPLICATION

Consolidated Permits Program

(This information is required under Section 3005 of RCRA.)

I. EPA I.D. NUMBER

S													T/A	C
F	M	I	D	0	8	5	8	9	0	8	4	6		1
1	2											13	14	15

OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)	COMMENTS
23	24 - 29	

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below *(mark one box only)* to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION *(place an "X" below and provide the appropriate date)*

[X] 1. EXISTING FACILITY *(See instructions for definition of "existing" facility. Complete item below.)* (71)

[ ] 2. NEW FACILITY *(Complete item below.)* (71)

FOR EXISTING FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to the left)*

C	YR.	MO.	DAY
8	7 8 (73 74)	5 (75 76)	8 (77 78)
15			

FOR NEW FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR IS EXPECTED TO BEGIN

YR.	MO.	DAY
(73 74)	(75 76)	(77 78)

B. REVISED APPLICATION *(place an "X" below and complete Item I above)*

[ ] 1. FACILITY HAS INTERIM STATUS (72)

[ ] 2. FACILITY HAS A RCRA PERMIT (72)

III. PROCESSES – CODES AND DESIGN CAPACITIES

A. PROCESS CODE – Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code*(s)* in the space provided. If a process will be used that is not included in the list of codes below, then describe the process *(including its design capacity)* in the space provided on the form *(Item III-C)*.

B. PROCESS DESIGN CAPACITY – For each code entered in column A enter the capacity of the process.

1. AMOUNT – Enter the amount.
2. UNIT OF MEASURE – For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
✓ CONTAINER *(barrel, drum, etc.)*	S01	GALLONS OR LITERS
✓ TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D79	GALLONS OR LITERS
LANDFILL	D80	ACRE-FEET *(the volume that would cover one acre to a depth of one foot)* OR HECTARE-METER
LAND APPLICATION	D81	ACRES OR HECTARES
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
OTHER *(Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)*	T04	GALLONS PER DAY OR LITERS PER DAY

UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G
LITERS	L
CUBIC YARDS	Y
CUBIC METERS	C
GALLONS PER DAY	U
LITERS PER DAY	V
TONS PER HOUR	D
METRIC TONS PER HOUR	W
GALLONS PER HOUR	E
LITERS PER HOUR	H
ACRE-FEET	A
HECTARE-METER	F
ACRES	B
HECTARES	Q

EXAMPLE FOR COMPLETING ITEM III *(shown in line numbers X-1 and X-2 below)*: A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

S													T/A	C
C	D	U	P											1
1	2											13	14	15

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S 0 2	600	G		5	S 0 2	900	G	
X-2	T 0 3	20	E		6	S 0 2	1000	G	
1	S 0 2	3400	G		7	S 0 2	4200	G	
2	S 0 2	2250	G		8	S 0 3	15	Y	
3	S 0 2	1200	G		9	T 0 1	1500	E	
4	S 0 2	2600	G		10	T 0 1	1500	E	

Continued from the front.

III. PROCESSES *(continued)*

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES *(code "T04")*. FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

T01	3000	E
T01	3000	E
T01	3000	E
T04	45	G

IV. DESCRIPTION OF HAZARDOUS WASTES

A. **EPA HAZARDOUS WASTE NUMBER** – Enter the four–digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four–digit number*(s)* from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. **ESTIMATED ANNUAL QUANTITY** – For each **listed waste** entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each **characteristic** or **toxic contaminant** entered in column A estimate the total annual quantity of all the non–listed waste*(s)* that will be handled which possess that characteristic or contaminant.

C. **UNIT OF MEASURE** – For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. **PROCESSES**

1. PROCESS CODES:
   For listed hazardous waste: For each **listed** hazardous waste entered in column A select the code*(s)* from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.
   For non–listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code*(s)* from the list of process codes contained in Item III to indicate **all** the processes that will be used to store, treat, and/or dispose of all the non–listed hazardous wastes that possess that characteristic or toxic contaminant.
   Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code*(s)*.

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER – Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B,C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV *(shown in line numbers X-1, X-2, X-3, and X-4 below)* – A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non–listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARD. WASTE NO (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K 0 5 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	400	P	T 0 3 D 8 0	
X-3	D 0 0 1	100	P	T 0 3 D 8 0	
X-4	D 0 0 2				included with above

Continued from page 2.
NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

Form Approved OMB No. 158-S80004

EPA I.D. NUMBER (enter from page 1): M I D 0 8 5 8 9 0 8 4 6 | T/A: | C: 1

FOR OFFICIAL USE ONLY: W | DUP | T/A: | C: 2 | DUP

DESCRIPTION OF HAZARDOUS WASTES (continued)

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	F006	158,000	P	T04 D80	See copy attached
2	F009	72,000	P	S02 T04	See reverse side
3					
4	P030	102,000	P	T01 D80	Alkaline chlorination oxidation
5	P029				Included with above
6	P106				Included with above
7					
8	D002	20,000	P	T01 D80	Ph adjustment in respective stages
9					
10	D007	7,500	P	T04 S02 D80	Corning evaporator to holding tank
11					See copy attached
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

Continued from the front.

IV. DESCRIPTION OF HAZARDOUS WAST (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

(F009) Nitric rack strip solution is hauled by licensed hauler to a chemical reclamation facility.

EPA I.D. NO. (enter from page 1)

S F	M	I	D	0	8	5	8	9	0	8	4	6	T/A	C 6
1 2												13	14	15

V. FACILITY DRAWING

All **existing** facilities must include in the space provided on page 5 a scale drawing of the facility *(see instructions for more detail).*

VI. PHOTOGRAPHS

All existing facilities must include photographs *(aerial or ground—level)* that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas *(see instructions for more detail).*

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)						LONGITUDE (degrees, minutes, & seconds)					
4	2	5	5		0		8	4	3	4	0
65	66	67	68	69	71	72	74		75	76	77	79	

VIII. FACILITY OWNER

☐ A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER	2. PHONE NO. (area code & no.)
C E Allied Finishing, Inc.	6 1 6 - 6 9 8 - 7 5 5 0
15 16 55	56 58 59 61 62 65

3. STREET OR P.O. BOX	4. CITY OR TOWN	5. ST.	6. ZIP CODE
C F 4100 Broadmoor S.E.	C G Grand Rapids	M I	4 9 5 0 8
15 16 45	15 16 40	41 42	47 51

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
Robert W. Corl, Jr., President	Robert W. Corl, Jr.	3-2-82

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED

Continued from page 4.

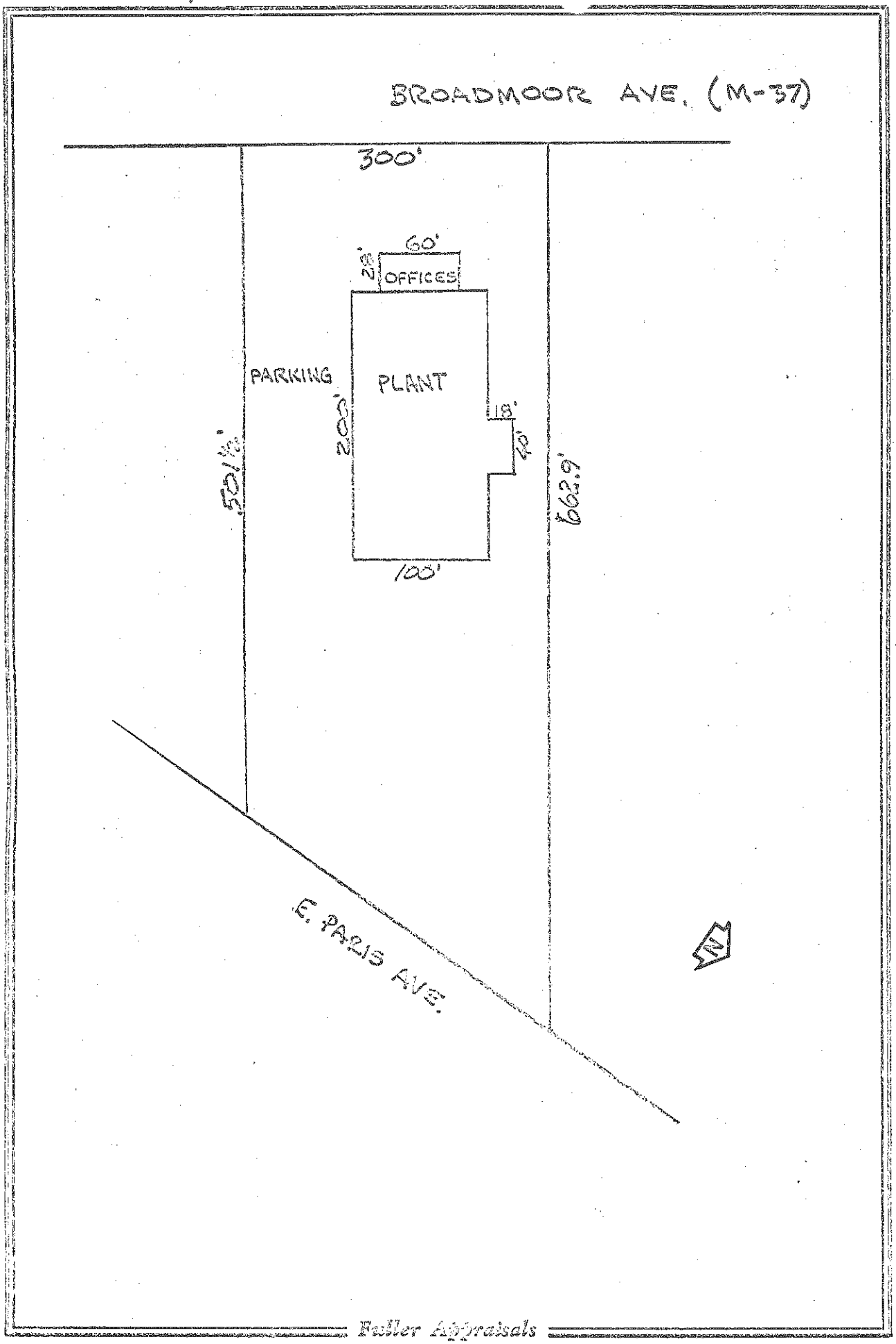
Form Approved OMB No. 158-S80004

V. FACILITY DRAWING *(see page 4)*

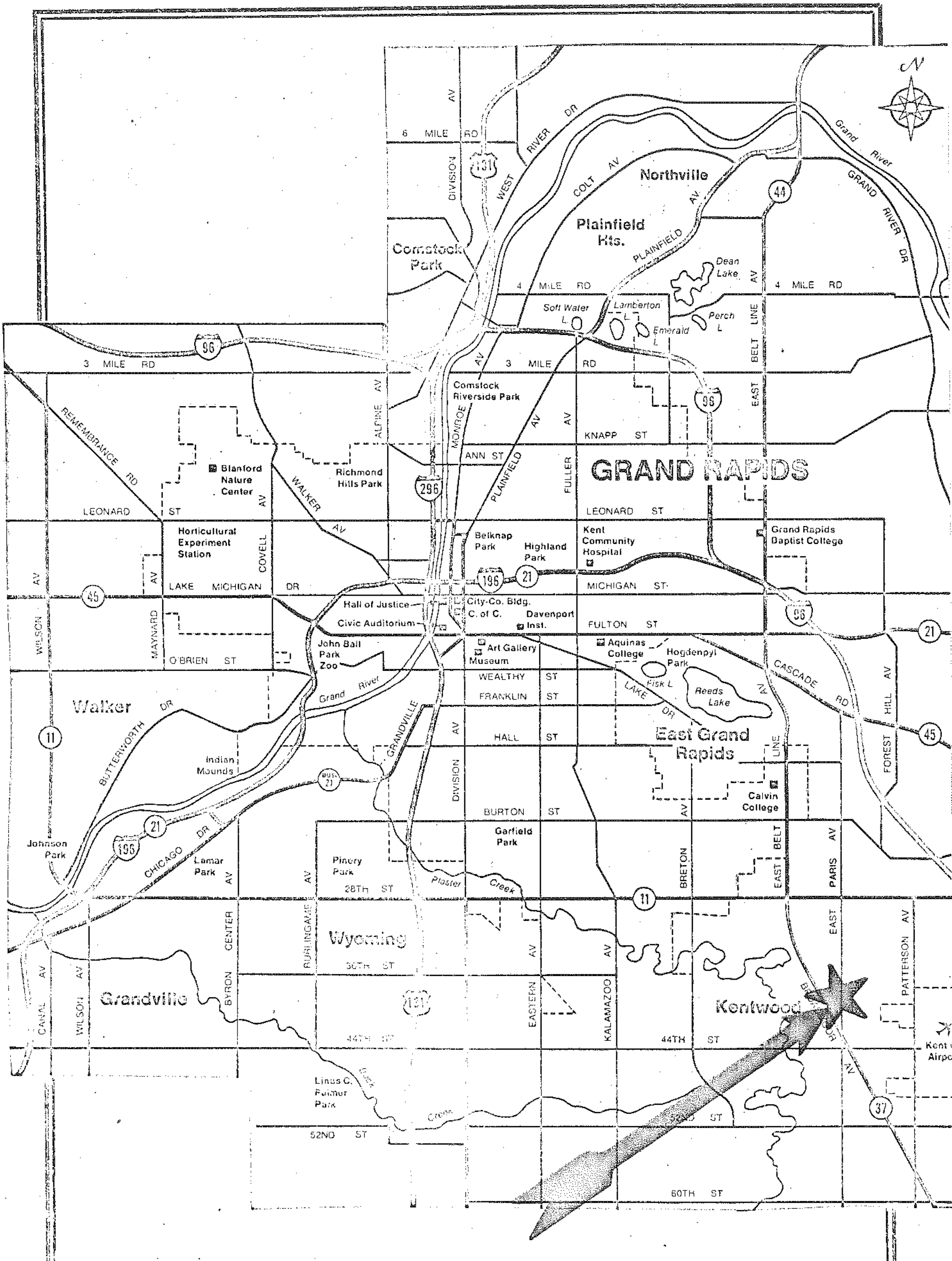
Note: Diagrams attached.

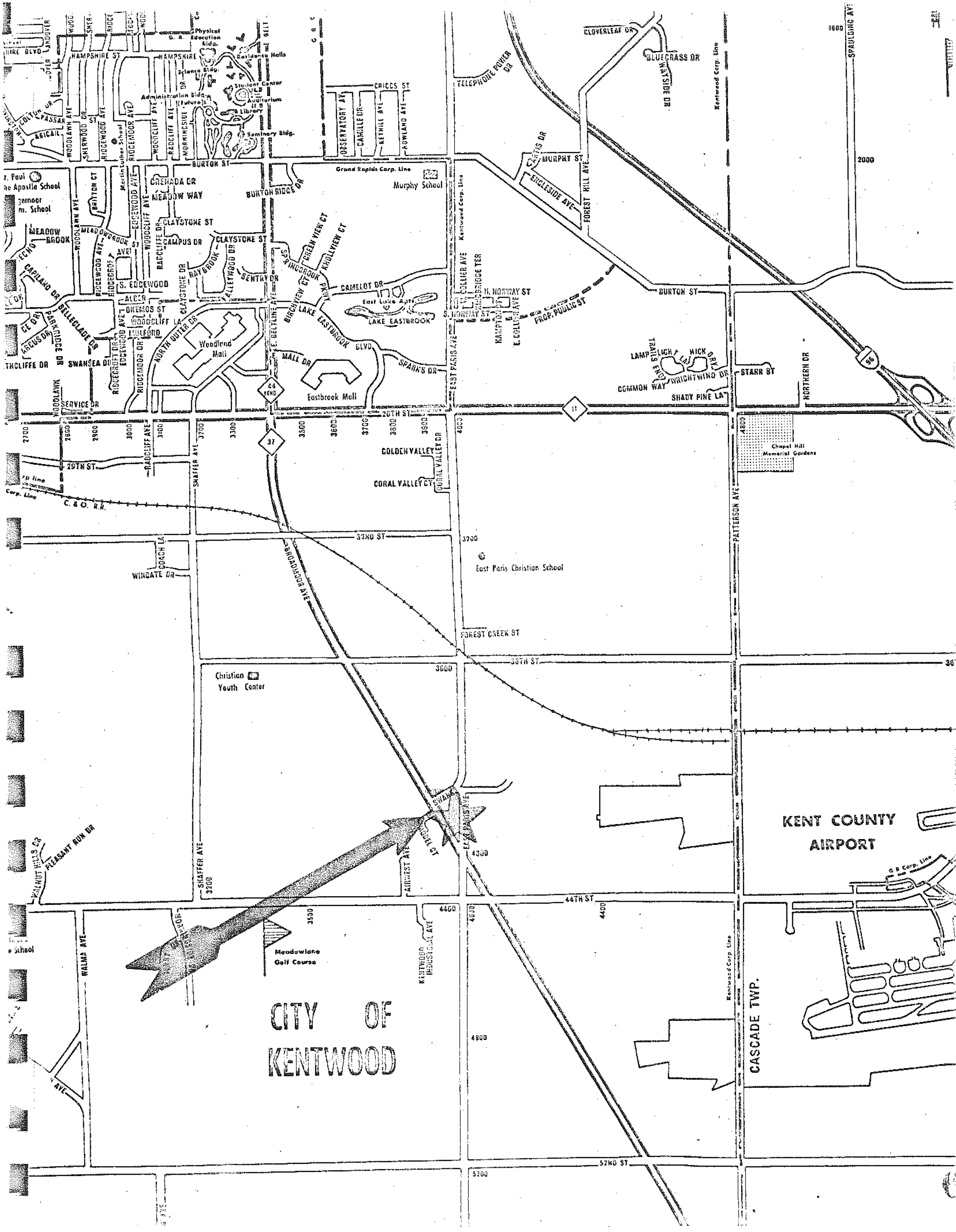
E.P.A. copy

2/24/82



Feller Appraisals


N
GRAND RAPIDS
Northville
Plainfield Hts.
Comstock Park
Comstock Riverside Park
Blanford Nature Center
Richmond Hills Park
Horticultural Experiment Station
Belknap Park
Highland Park
Kent Community Hospital
Grand Rapids Baptist College
Hall of Justice
City-Co. Bldg.
C. of C.
Davenport Inst.
Civic Auditorium
John Ball Park Zoo
Art Gallery
Museum
Aquinas College
Hogdenpyl Park
Reeds Lake
Fisk L
Walker
Indian Mounds
East Grand Rapids
Calvin College
Garfield Park
Johnson Park
Lamar Park
Pinery Park
Wyoming
Grandville
Kentwood
Linus C. Palmer Park
Dean Lake
Soft Water L.
Lamberton L.
Emerald L.
Perch L.
6 MILE RD
4 MILE RD
3 MILE RD
KNAPP ST
ANN ST
LEONARD ST
LAKE MICHIGAN DR
MICHIGAN ST
FULTON ST
O'BRIEN ST
WEALTHY ST
FRANKLIN ST
HALL ST
BURTON ST
28TH ST
36TH ST
44TH ST
52ND ST
60TH ST
CASCADE RD
LAKE DR
CHICAGO DR
BUTTERWORTH DR
REMEMBRANCE RD
WALKER AV
PLAINFIELD AV
COLT AV
WEST RIVER DR
GRAND RIVER DR
DIVISION AV
MONROE
ALPINE AV
FULLER AV
EAST BELT LINE
COVELL AV
MAYNARD AV
WILSON AV
CANAL AV
BYRON CENTER AV
BURLINGAME AV
GRANDVILLE AV
EASTERN AV
KALAMAZOO AV
BRETON AV
PARIS AV
EAST
FOREST HILL AV
PATTERSON AV
Grand River
Plaster Creek
Kent Airport
96
131
296
196
44
21
45
11
37



CITY OF KENTWOOD
KENT COUNTY AIRPORT
CASCADE TWP.
Woodland Mall
Eastbrook Mall
East Lake Apts
LAKE EASTBROOK
Murphy School
East Paris Christian School
Christian Youth Center
Meadowlane Golf Course
Chapel Hill Memorial Gardens
Grand Rapids Corp. Line
Kentwood Corp. Line
BURTON ST
28TH ST
29TH ST
32ND ST
36TH ST
44TH ST
52ND ST
C. & O. R.R.
BROADMOOR AVE
EAST PARIS AVE
PATTERSON AVE
SHAFFER AVE
WALMA AVE
AIRWEST AVE
KENTWOOD INDUSTRIAL AVE
FOREST CREEK ST
GOLDEN VALLEY
CORAL VALLEY CT
WINGATE DR
COACH LA
SERVICE DR
SPARKS DR
STARR ST
SHADY PINE LA
NORTHERN DR
COMMON WAY
WRIGHTWIND DR
FOREST HILL AVE
ENGLESIDE AVE
MURPHY ST
CLOVERLEAF DR
BLUEGRASS DR
WAYSIDE DR
TELEPHONE POWER DR
SPAULDING AVE
GRIGGS ST
OBSERVATORY AV
CAMILLE DR
KETHILL AVE
ROWLAND AVE
HAMPSHIRE ST
RIDGEMOOR AVE
BURTON RIDGE DR
GRENADA DR
MEADOW WAY
CLAYSTONE ST
CAMPUS DR
SENTRY DR
CAMELOT DR
LAKE EASTBROOK BLVD
MALL DR
NORTH OUTER DR
S. EDGEWOOD
OKEMOS ST
MILFORD
SWANSEA DR
PLEASANT RUN DR
PROP. PUBLIC ST
N. NORWAY ST
S. NORWAY ST
Physical Education Bldg.
Residence Halls
Science Bldg.
Student Center
Administration Bldg. (Future)
Auditorium
Library
Seminary Bldg.
3600
2000
2700
2800
2900
3000
3100
3700
3300
3500
3600
3700
3800
3900
4000
4800
3700
3600
4300
3200
3500
4400
4600
4400
4800
5200
44
37
11
96

March 2, 1982

WASTE TREATMENT OUTLINE

Waste treatment is performed on a continual flow through basis, one basic system with individual stages for low Ph or high Ph wastes with a total design capacity of fifty gallons per minute.

(Alkaline) High Ph wastes, bearing E.P. Toxics, P030, P029, P106.

Rinses bearing these wastes flow into pretreatment pit under system in its respective side. At this point waste is pumped through treatment and alkaline chlorination to oxidation with metal hydroxide precipitation occouring, at maximum rate of twenty-five gallons per minute, then flowing into Ph adjustment tank, mixing with lower Ph nickel and chrome treatment being pumped into clarifier to precipitate followed by filter press dewatering sludge to a 30% solid, being stored in 15 cubic yard dumpster waiting for commercial waste hauler.

(Acid) Low Ph wastes, bearing E.P. Toxics D002, D007, including nickel and acid copper rinses.

Chromium rinses are concentrated by corning evaporator recovery system concentrating rinses for reuse in plating bath.

Rinses bearing chromium along with all other toxics above flow into pretreatment pit under system in its respective side. At this point waste is pumped through treatment where hexivalent chromium is reduced to trivalent in a low Ph medium followed by nickel reduction in high Ph medium with subsequent precipitation of metal hydroxides at a maximum rate of twenty-five gallons per minute, then flowing into Ph adjustment tank mixing with higher Ph treated alkaline side, then pumped into clarifier to precipitate, followed by filter press dewatering sludge to a 30% solid. All waters subsequently treated flow into outfall flowing to municipal water treatment.

E.P.A. COPY

DIAGRAM KEY

Diagram No. III.

1. Tri-level storage
2. Tri-level storage
3. Tri-level storage
4. Final polishing tank before outfall.
5. Nickel storage
6. Subgrade cyanided treatment pit
7. Subgrade acid & nickel & chrome treatment pit.
8. Ongrade clarifier
9. Ongrade acid-copper storage
10. Dry cyanide enclosed storage
11. Elevated cyanide storage tank
12. Subgrade cyanide pre-treatment holding pit.
13. Subgrade acid & nickel & chrome pre-treatment holding pit.
14. Chrome cation filter & holding tanks.
15. Cation & D.I. water pre-treatment holding tank.
16. Nickel filter & brightner tanks section.
17. Final outfall to city.
18. Additional chemical storage area.
19. Acid copper filters & brightner tanks.
20. Cyanide copper filters.
21. Nitric acid strip.
22. (note:) Retaining walls in RED

Loading & Unloading Docks

Shipping

Prod.

Lab

Lunch Rooms

Rest Rooms

Cleaners

Cyn Cu.

Rinses

Acid Cu.

Dryer

Chrome Section

Rinses

Ni.

Rack Strip Rm.

Corning Evap.

Boiler Room

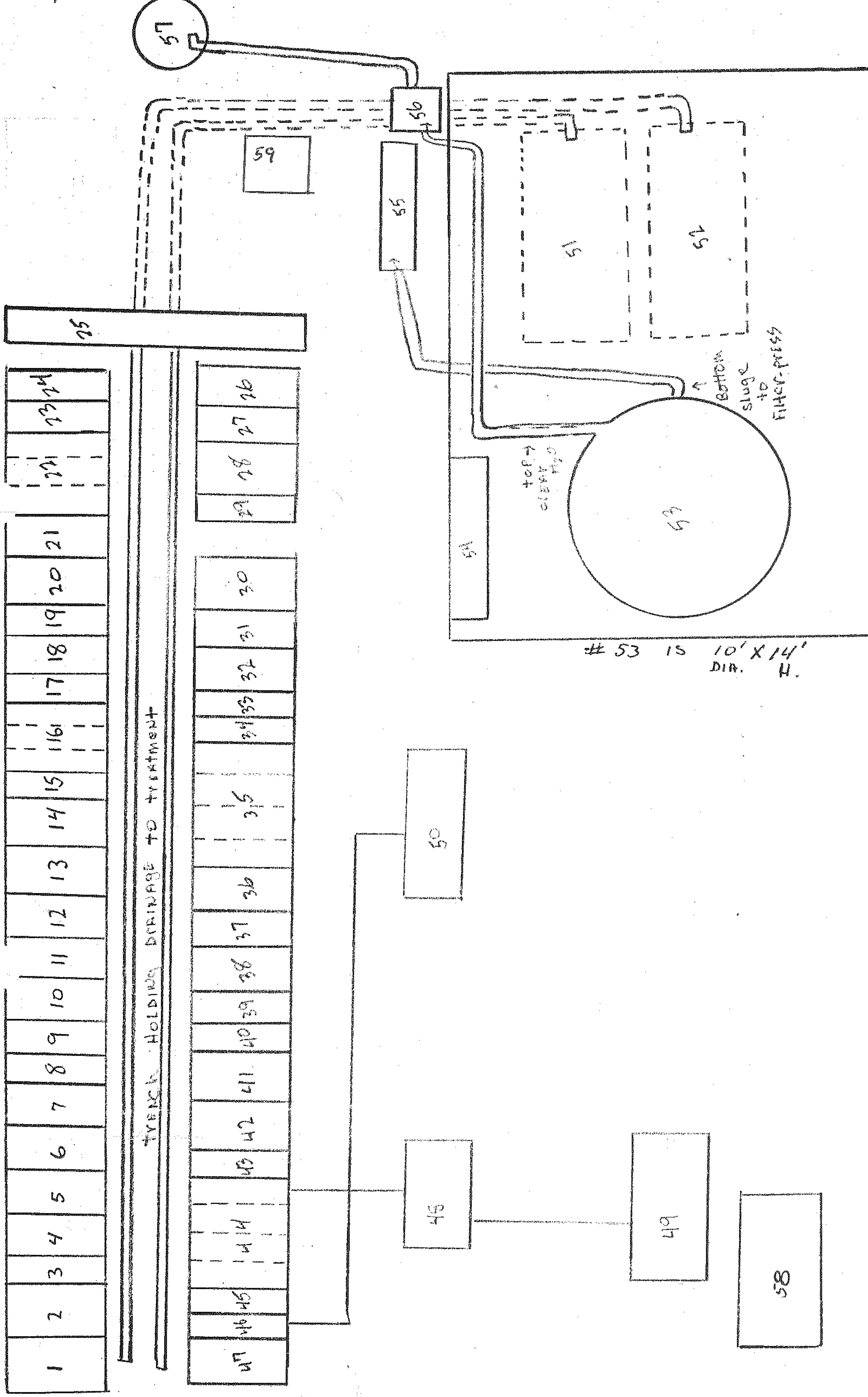
Rectifier Room

E.P.A.
COPY

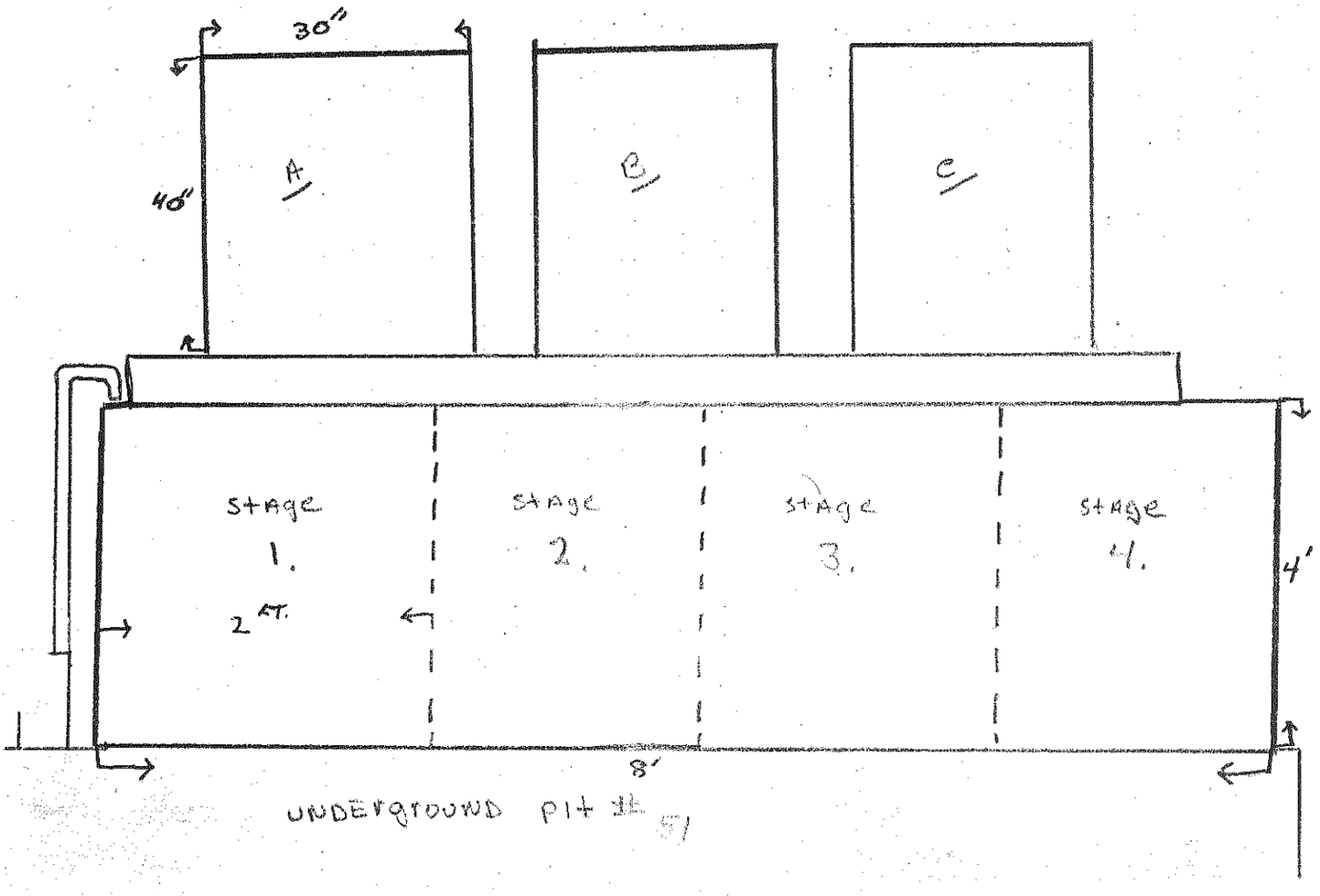
TOP VIEW

PLATING + TREATMENT

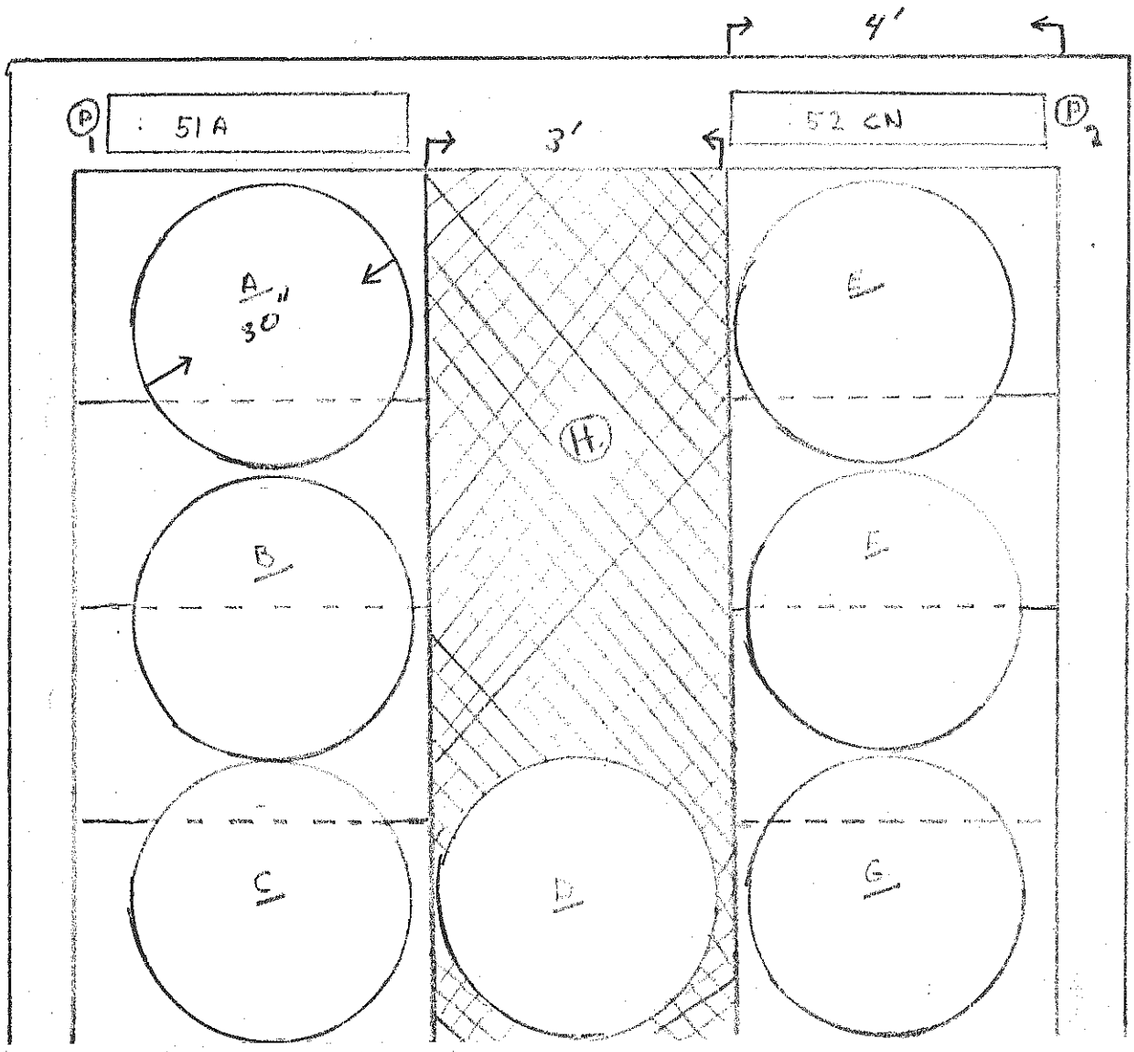
PAGE #1



SIDEVIEW
treatment system
CYANIDE SIDE



TOPVIEW
treatment system



Page # 1.

Plating + treatment

1. Soak
2. Soak – Primary
3. Spray Wash
4. Secondary Soak
5. Electro-cleaner
6. Electro-cleaner
7. Electro-cleaner
8. Rinse tank
9. Die-cast Acid
10. Muriatic Acid
11. Rinse tank
12. copper strike
13. Bright copper
14. Bright copper
15. Copper Reclaim

(12–15: CN.)

16. Bay Rinse
17. Electro-cleaner
18. Rinse tank
19. Rinse tank
20. Bright Acid Copper
21. Bright Acid Copper
22. 3-Bay Rinse
23. Muriatic Acid
24. Rins tank

II 59 NEW. Polishing tank

26. Semi-Bright Nickel
27. Semi-Bright Nickel
28. Semi-Bright Nickel
29. Semi-Bright Nickel
30. Bright Nickel
31. Bright-Nickel
32. Bright-Nickel
33. Durni-Nickel
34. Spray Rinse
35. 4-Bay Rinse
36. chrome strip
37. Rinse tank
38. Storage
39. Replate Acid
40. Rinse tank
41. chrome Plating tk.
42. chrome Plating tk.
43. chrome Reclaim
44. 4-Bay Rinse
45. H_2O Shed Rinse
46. D.I. Rinse
47. Dryer
48. Cation Exchange - CrO_3
49. Corning Evaporator - CrO_3
50. Deionizer unit
51. Underground CN. Pit.
52. Underground Acid pit.
53. Clarifier
54. Computer control
55. Sluge Filter Press
56. Outfall Holding chec (int)
57. Manhole outfall.
58. Pretreatment Pit

Page # 2.

treatment system CYANIDE SIDE.

A.) Liquid Caustic Soda
B.) chlorine Bleach
C.) Sulfuric Acid
1. Injected caustic and Bleach.
2. overflow mix
3. Injected Bleach Acid + Polymer
4. Final stage to Surge tank.
P.) Sump pump from CN pit # 51 to stage I. tank of treatment.

SIDEVIEW

treatment System ACID SIDE.

Pictured Partially on topview.

E.) Sulfuric Acid
F.) Sodium Bisulfite
E.) Liquid caustic Soda
1. Injected Sulfuric and Bisulfite
2. overflow mix
3. Injected caustic and Polymer
4. Final stage to surge tank.
P_2. Sump pump from Acid pit # 52 to stage I of treatment.

topview treatment system

A) Liquid Caustic Soda
B.) chlorine Bleach
C.) Sulfuric Acid
D.) Polymer
E.) Sulfuric Acid
F.) Sodium Bisulfite
G.) Liquid Caustic Soda

H.) Surge tank. Holds treated waste to be pumped to the clarifier where clear water flows off top to outfall # 57 and settled sluge is pumped to Filter press where wet-solid Filter cake is hauled to Dumpster waiting for Industrial ste Hauler

C.2 Compliance/Enforcement

E.P.A. COPY

A-34

EVALUATION OF THE EP TOXICITY TEST OF PLATING SLUDGE FILTER CAKE FOR ALLIED FINISHING GRAND RAPIDS, MICHIGAN

MARCH 26, 1981

By: Western Michigan Environmental Services, Inc. (ESI)
146 South River Avenue
Holland, Michigan 49423
616-396-1209

PURPOSE

The purpose of this study was to evaluate the plating sludge filter cake generated by Allied Finishing, Inc., Grand Rapids, Michigan, to determine the nature of its constituents for waste disposal. This evaluation will define the possible classification of a suitable disposal method in accordance with the criteria set forth in the Monday, May 19, 1980, Federal Register, Volume 45, Number 98, 40 CFR Part 261.24, Characteristics of EP Toxicity, Appendix II to that subpart and the Michigan Department of Natural Resources (DNR) Act No. 64 of the Public Acts of 1979.

PARAMETER AND TEST METHOD SELECTION

The method selected was EP Toxicity Test. The parameter list and method selected were presented to ESI by Michael Smith of Allied Finishing in coordination with Mr. R. Waybrant of the Office of Hazardous Waste Management, Lansing, Michigan.

PROCEDURE

The plating sludge filter cake was prepared for analysis by the procedure of the Environmental Protection Agency (EPA) Test Methods for Evaluating Solid Waste, Volume I, Physical/ Chemical Methods, May, 1980, pp 7.5-2 to 7.5-6.

The equipment utilized was an ESI EP Toxicity solid waste rotary extractor operating at 29 rpm for twenty-four (24) hours as specified by the procedure. A 110.2 g sample and 1763.2 ml of deionized water were placed in a one gallon (4 liter) glass container.

During the extraction period 440.8 ml of 0.5N acetic acid were added. The solid was separated from the liquid phase by filtration through a 0.45 µm filter. The resulting filtrate was then analyzed for the parameters listed on the Table of Results.

The analytical procedures and/or instruments utilized were as follows:

STANDARD PROCEDURES FOR ALL AQUEOUS SAMPLES

Solids, All Forms	ASTM Method D1888 and Standard Methods Part 208.
Cyanide	EPA Method 335.1.
Metals, General	ASTM Method D2576 and Standard Methods Part 301A utilizing a Jarrell-Ash Model 850 Atomic Absorption Spectrophotometer (dual beam with D_2 background correction).
Arsenic	ASTM Method D2972 Method A.
Barium	Standard Methods Part 303A.
Cadmium	ASTM Method D3557 and Standard Methods Part 305A.
Chromium	ASTM Method D1687 and Standard Methods Part 307A.
Copper	ASTM Method D1688 and Standard Methods Part 308.
Lead	ASTM Method D3559 and Standard Methods Part 311A.
Mercury	Cold Vapor Procedure, ASTM Method D3223 and Standard Methods Part 315.
Selenium	Colorimetric Procedure utilizing a Hitachi Model 100-60 dual beam UV-vis spectrophotometer. ASTM Method D3081 and Standard Methods Part 318.
Silver	Standard Methods Part 319.
Zinc	ASTM Method D1691 and Standard Methods Part 323A.

DESCRIPTION

The plating sludge filter cake sample was aqua blue, black and green chunks. The texture was that of clay in stratified layers; usually blue on the outside layers, black and green on the inside layers. The sample was easily broken apart.

The sample was prepared for analysis, weighed out and put into the extraction vessel, the initial pH was 9.0; 440.8 ml of 0.5N acetic acid were added during the monitoring period. The amount of acetic acid added was the maximum allowable for the EP Toxicity test; therefore, the pH remained above 5.0, the final pH was 5.7. At the end of the extraction period the sample was filtered through a 0.45 um filter.

The original sample contained 24.0% total solids, of which 25.0% were volatile and 75.0% were ash.

TABLE OF RESULTS

Leachate concentrations of plating sludge filter cake waste
All results expressed as milligrams per liter (mg/l).

PARAMETER	CONCENTRATION	MAXIMUM CONCENTRATION	
		EPA	DNR
Arsenic	<0.03	5.0	5.0
Barium	1.3	100.0	100.0
Cadmium	0.02	1.0	1.0
Copper	831.6	---	100
Chromium	0.4	5.0	5.0
Cyanide	<0.03	---	20
Lead	0.13	5.0	5.0
Mercury	0.004	0.2	0.2
Selenium	<0.03	1.0	1.0
Silver	<0.01	5.0	5.0
Zinc	70.0	---	500.0

COMMENTS

The plating sludge filter cake waste according to DNR regulations has exceeded maximum Copper concentration allowable and, therefore, might be classified as hazardous.

ESI

E.P.A. COPY

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
146 SOUTH RIVER AVENUE
HOLLAND, MICHIGAN 49423
PHONE 616-396-1209

D29

TO: Allied Finishing Company
4100 Broadmoor, S.E.
Grand Rapids, Michigan 49508

Attn: Mike Smith

RECEIVED
AUG 10 1981
ALLIED FINISHING

DATE: August 6, 1981

ANALYSIS of sludge cake

CERTIFIED BY: William H. Bouma
William H. Bouma, Ph.D., Director of Laboratories

SAMPLING DATE: Received from client on July 21, 1981

RESULTS: Expressed as milligrams per kilograms of sample.

ESI #	SAMPLE I.D.	PARAMETER	CONCENTRATION
810734	Sludge Cake	Total Solids	246,900
		Volatile Solids	58,300
		Ash	188,600
		Cyanide	170
		Metals:	
		Arsenic	<0.68
		Barium	11.9
		Cadmium	0.59
		Chromium	16.8
		Copper	42,500
		Lead	19.0
		Mercury	0.075
		Selenium	<0.42
		Silver	1.64
		Zinc	1,977

Environmental Data Inc.
ENVIRONMENTAL SCIENTISTS/ENGINEERS/GEOLOGISTS/CHEMISTS
611 CASCADE WEST PARKWAY, S.E., P.O. BOX 6510, GRAND RAPIDS, MICHIGAN 49506

WATER · WASTEWATER · BIOLOGICAL STUDIES
ORGANICS · TOXIC SUBSTANCE ANALYSIS
TREATABILITY STUDIES · ENVIR. EVALUATIONS

ANALYTICAL SERVICES

PROJECT: Allied Finishing
JOB #: 25052
SAMPLING LOCATION:
SAMPLED BY:
SAMPLE DESCRIPTION: Filter Cake

DATE SAMPLED: 7/14/81 TIME:
DATE RECEIVED: 7/20/81 TIME: 3 PM
DATE COMPLETED: 8/17/81
SCHEDULED COMPLETION: 8/17/81
ANALYST: GZ; KLM
QUALITY CONTROL REVIEW BY: DMF

COMMENTS:

						DATE OF ANALYSIS	DL
EDI SAMPLE NO.	19445		RECEIVED				
			AUG 28 1981				
Arsenic	1.6 µg/kg		ALLIED FINISHING			8/6/81	40 µg/kg
Barium	18 mg/kg					8/4/81	2.0 mg/kg
Cadmium	<0.40 mg/kg					8/5/81	0.40 mg/kg
Chromium	3200 mg/kg					8/5/81	0.40 mg/kg
Cyanide, Total	80 mg/kg					7/23/81	4.5 mg/kg
Lead	19 mg/kg					8/5/81	0.40 mg/kg
Mercury	<100 µg/kg					8/7/81	100 µg/kg
Selenium	<0.5 mg/kg					8/17/81	0.5 mg/kg
Silver	0.08 mg/kg					8/14/81	0.04 mg/kg

Analysis by Standard Methods, 14th Edition, and/or Methods for Chemical Analysis of Water and Wastes. EPA, 1979.

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
146 SOUTH RIVER AVENUE
HOLLAND, MICHIGAN 49423
PHONE 616-396-1209

RECEIVED
AUG 23 1980
ALLIED FINISHING

TO: Allied Finishing
4100 Broadmoor, S.E.
Grand Rapids, Michigan 49508

Attn: Jim Van Aman

DATE: August 22, 1980

ANALYSIS of Various Wastes

CERTIFIED BY: William H Bouma (DB)
William H. Bouma, Ph.D., Director of Laboratories

SAMPLING DATE: Received on August 11, 1980

RESULTS: All expressed in relation to total sample

ESI #	SAMPLE I.D.	PARAMETER	CONCENTRATION
800814-1	CuCN waste	Cyanide mg/kg	75,000 mg/kg
		Copper mg/kg	44,420 mg/kg
-2	Filter Cake	Total Solids	216,000 mg/kg
		Chromium	3,000 mg/kg
		Copper	57,000 mg/kg
		Nickel	34,000 mg/kg
-3	Rack Stripping Solution	Chromium	12.6 mg/l
		Copper	850 mg/l
		Nickel	26,050 mg/l

cc: Fred Rosema

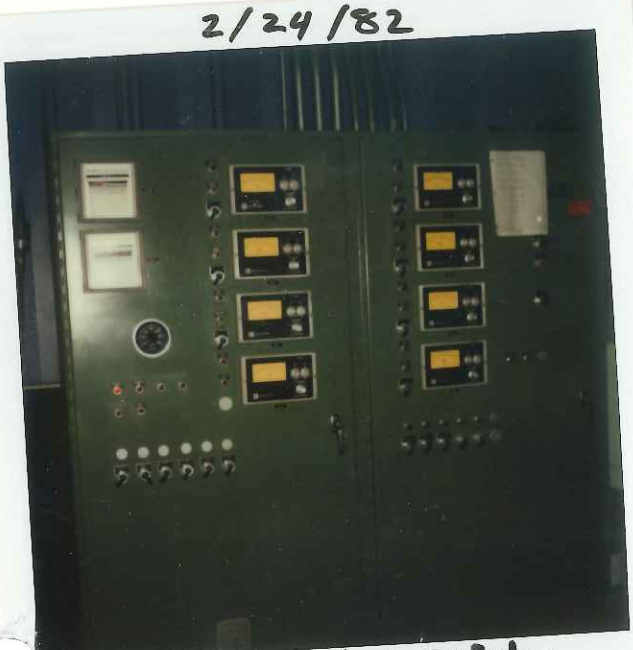
8-25-80

CN Copper Storage
2/24/82

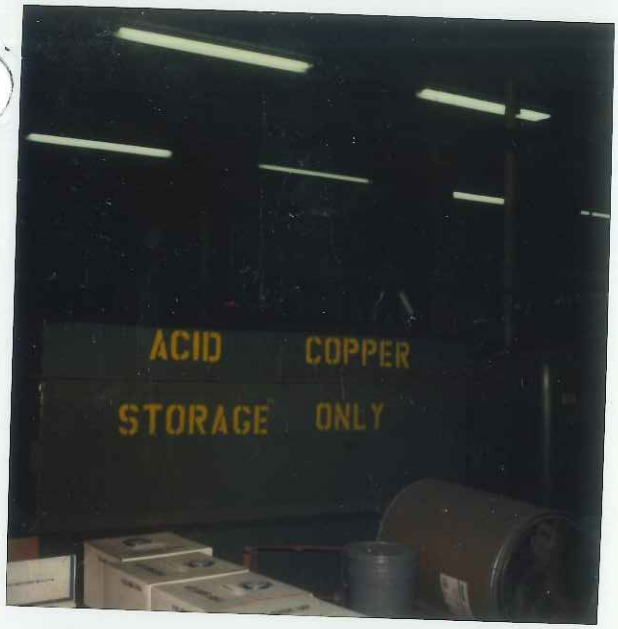
2/24/82

Corning Evaporator for chrome Recovery & Reduction

2/24/82



Waste Treatment control panel



Acid Copper storage
2/24/82

Nitric Rack Strip Room w/ Fume Scrubber
2/24/82

Chemical Storage
2/24/82

Filter CAKE
Dumpster
2/24/82

treatment system
2/24/82

CYANIDE storage
fully closed B,D
2/24/82

2/24/82

CLARIFIER For waste treatment

Plating Line 2/24/82

2/24/82

CATION EXCHANGE UNIT w/chrome HOLDING TANK For EVAPORATOR

2/24/82

D.I. water unit w/ blowdown tank, used for pretreatment.

2/24/82

underground pretreatment pits. (1 alkaline) (1 acid)

2/24/82

Sludge filter press and Ni. storage tank

AERO-ART PHOTO STUDIOS
709 LYON ST. NE
GRAND RAPIDW,MI, 49503

ALLIED FINISHING INCORPORATED
4100 BROADMOOR ST SE
GRAND RAPIDS,MI 49508

Aerial views of this firm, at geographic location 42 degrees, 55 minutes north latitude,& 84 degrees 34 minutes west longitude.

Views include 1 11 X 14 print for directional, road network, and surrounding terrain reference only (colour cast may not be accurate), & 4 8X 10 prints of facility covering all four sides of building, property boundaries, and lot layout.

Viewing under bright incandescent light will reveal details best. Flourescent lighting is o.k. but true colours may shift slightly.

Photographs were taken Thursday, July 23rd, 1981, at 6:00 P.M. From an altitude of 800 ft. using a Honeywell Pentax 6 X 7 cm SLR camera throgh a 105 mm Takumar SMC lens f5.6 @ 1/500 sec on Kodacolor 11 film, no filter - printed on Kodak 78 RC Ektacolor paper

Thank You
Raymond D Kuzee

Raymond D Kuzee

Retainer	$ 100.00
1 11 X 14 print	$ 20.00
4 8 X 10 prints @ $ 10.00 ea	$ 40.00
Total	$ 160.00